

**PATENT****REMARKS**

Claims 1-52 are pending in the present application. In the above amendments, claims 1, 4, 17, 22, 27, 32, 36, 43, and 48 have been amended.

Applicants respectfully respond to this Office Action.

***Claim Rejections – 35 USC § 112***

Claims 1-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner points out that independent claims 1, 17, 22, 27, and 32 have insufficient antecedent basis for the feature “each pair of data symbols.” Applicants amend independent claims 1, 17, 22, 27, and 32 to provide antecedent basis for this feature.

Examiner points out that independent claims 36, 43, and 48 have insufficient antecedent basis for the feature “each pair of data vectors.” Applicants amend independent claims 36, 43, and 48 to provide antecedent basis for this feature.

Because all independent claims now have antecedent basis for the aforementioned features, all dependent claims also have antecedent basis. Therefore all of Applicants’ claims meet the requirements of 35 U.S.C. 112, second paragraph.

***Claim Rejections – 35 USC § 102***

Claims 1, 17, 22, 27, 32, 36, 43 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhuang et al., U.S. Patent Publication 2003/0112745, hereinafter Zhuang.

Applicants amend independent claims 1, 17, 22, 27, 32, 36, 43, and 48 to highlight the feature of Applicants’ claims that “the two pairs of transmit symbols are to be transmitted over at least one OFDM subband, and also further wherein the OFDM communication system is capable of adjusting the total number of available subbands.” This feature is also supported by Applicants’ specification as originally filed. For example, please see paragraph [0047] and

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[0062]. Zhuang does not teach or recite these features. Therefore, all of Applicants' claims are allowable over Zhuang.

***Additional Claim Amendments***

Applicants also amend claim 4 to fix a minor typographical error. The subscript "T" is added to "N" to make the terminology consistent with the specification.

***Allowable Subject Matter***

Applicants acknowledge that claims 2-16, 18-21, 23-26, 28-31, 33-35, 37-42, 44-47, and 49-52 constitute allowable subject matter and would be allowable if rewritten to include all of the limitation of the base claims and any intervening claims. Applicants submit, however, that in light of the preceding discussion on the rejected base claims, all of Applicants' claims are patentable and allowable.

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**CONCLUSION**

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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By: 

Rupit Patel, Reg. No. 53,441  
(858) 651-7435

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, California 92121  
Telephone: (858) 658-5787  
Facsimile: (858) 658-2502